

applicants' attorneys on June 19, 2001. Applicants understand that the Examiner considered those references as indicated by the citation of the Raab reference (discussed below) which applicants submitted with the Information Disclosure Statement and which was not cited in the Examiner's "Notice of References Cited." However, applicants respectfully request that the Examiner more formally acknowledge receipt and consideration of the Information Disclosure Statement of June 7, 2001 and the references AA-BL (e.g., by kindly initialing the box next to each listed reference on the Form 1449) in the Examiner's next communication.

The Drawings

The Office Action does not provide any indication that the Official Draftsperson of the U.S. Patent and Trademark Office has approved the drawings filed with the application. Thus, applicants respectfully request an indication that the drawings have been accepted by way of a "Notice of Draftsperson's Patent Drawing Review" (PTO-948 Form).

The Present Invention

The present invention provides a cosmetic composition with improved moisturizing properties, a method of enhancing moisture retention in the skin from the epidermis, a method of reducing the rate of escape of water from the epidermis, and a method of improving the after-feel of a cosmetic composition when the composition is applied to the skin. In accordance with the present invention, it has been found that combining urea and coenzyme Q10 in a cosmetic composition results in a synergistic benefit of improved moisturizing properties, after-feel (e.g., non-greasiness, rapid absorption, and the like) and/or visual appeal. In some embodiments, urea and coenzyme Q10 are combined in a ratio of urea to coenzyme Q10 of from about 1:5 to about 20:1 (wt./wt.).

The Pending Claims

Claims 1-45 are pending currently. Claims 1-42 are directed to a cosmetic composition comprising urea and coenzyme Q10. Claim 43 is drawn to a method of enhancing moisture retention in the skin from the epidermis. Claim 44 is directed to a method of reducing the rate of escape of water from the epidermis. Claim 45 is drawn to a method of improving the after-feel of a cosmetic composition when the composition is applied to the skin. Reconsideration of the pending claims is respectfully requested.

The Amendments to the Claims

Claim 44 has been amended with respect to form to correct an obvious typographical error. Specifically, --of-- has been inserted between "method" and "reducing." No new

matter has been added by way of this amendment. Separate documents setting forth (a) the precise changes to the claims, and (b) a full set of the pending claims, are enclosed herewith.

Summary of the Office Action

The Office Action rejects claims 1-36 and 38-45 under 35 U.S.C. § 103(a) as being obvious over Fänger et al. (i.e., U.S. Patent No. 6,153,204). Claims 1-20, 23-41, and 43-45 stand rejected under 35 U.S.C. § 103(a) as being obvious over Hoppe et al. (i.e., U.S. Patent No. 5,912,272) in view of Raab (i.e., Uses of Urea in Cosmetology, 1990).

Discussion of Obviousness Rejections

The obviousness rejections are respectfully traversed because the cited references (alone or in combination) do not disclose nor reasonably suggest the present invention as recited in the pending claims.

In particular, the claimed subject matter, i.e., the combination of urea and coenzyme Q10, achieves surprising results that would be unexpected from the teachings of the cited art. Significantly, in accordance with the present invention, the combination of urea and coenzyme Q10 results in synergistic benefits. In this respect, the pending claims are commensurate with applicants' surprising discovery that the combination of urea and coenzyme Q10 results in unexpectedly high moisturizing properties.

The synergistic benefits are shown, for example, in the examples provided in the present application. As demonstrated in Example 1, and as can be seen graphically in Figure 1, Applicants have discovered that the combination of coenzyme Q10 and urea absorbs more water from the environment than would be expected, and more than either of urea or coenzyme Q10 if used alone. In addition, Example 2 of the present application shows that the combination of coenzyme Q10 and urea synergistically results in greater immediate skin moisturizing properties than urea alone and coenzyme Q10 alone. Specifically, the data in Example 2 establishes that the synergistic combination of coenzyme Q10 and urea results in an 11% maximum increase in skin moisturization over 1 hour, while urea alone and coenzyme Q10 alone exhibit an increase in skin moisturization of only 6.5% and 3.4%, respectively. Furthermore, Example 3 establishes the synergistic benefit of the combination of coenzyme Q10 and urea with respect to cumulative skin moisturization. Notably, the skin moisturization effect exhibited by the coenzyme Q10/urea blend tested in Example 3 is significantly greater than would be expected based on the individual moisturizations scores for coenzyme Q10 alone and urea alone.

The cited references do not disclose nor suggest that the combination of coenzyme Q10 and urea would result in the synergistic benefits demonstrated in the present application.

Fänger et al. is directed to a cosmetic preparation exhibiting a reduced feeling of stickiness. The preparations of Fänger et al. comprise an effective concentration of hydrophilic starch esterified with one or more n-octenylsuccinate radicals. As pointed out in the Office Action, Example 3 of Fänger et al. lists urea and generically mentions antioxidants. Among the antioxidants listed in column 7 of Fänger et al. is ubiquinone (coenzyme Q10). However, there is no specific teaching of combining coenzyme Q10 and urea, and furthermore, Fänger et al. merely teaches that adding "conventional" antioxidants is advantageous. Thus, Fänger does not appreciate any special benefit of selecting coenzyme Q10, let alone in combination with urea, as in the present invention. Fänger et al. does not provide any teaching or suggestion that combining coenzyme Q10 with urea would result in the surprising results demonstrated in the present application.

Hoppe et al. discloses the use of topical formulations that include ubiquinones for the treatment of senile xerosis and/or exogenous aging of the skin. The Office Action concedes that Hoppe et al. does not disclose the use of urea with coenzyme Q10. Instead, the Office Action points to the Raab reference as showing that urea is a known moisturizer and has been used in the art of personal care formulation for many, many years. However, neither Hoppe et al. nor Raab discloses or suggests that the combination of urea and coenzyme Q10 would result in any synergistic benefits, as demonstrated in the present application and as discussed above.

Accordingly, for at least the reason that the claimed subject matter of the present invention, namely, the combination of coenzyme Q10 and urea, results in surprising synergistic moisturizing benefits, which were not discussed or appreciated in the cited art, the pending claims are non-obvious and are believed to be allowable. Furthermore, Example 8 demonstrates the improved visual appeal of the synergistic composition comprising urea and coenzyme Q10, while Example 9 demonstrates the improvement in subjective rate of absorption (quick absorption) of a composition comprising a synergistic combination of urea and coenzyme Q10. Furthermore, Example 10 demonstrates the improvement in subjective moisturizing properties of a cosmetic product that contains a synergistic combination of urea and coenzyme Q10, and Example 11 demonstrates the improvement in subjective after-feel properties of a cosmetic product that contains a synergistic combination of urea and coenzyme Q10. These benefits demonstrated in Examples 8-11 are also not disclosed nor suggested in any of the cited references.

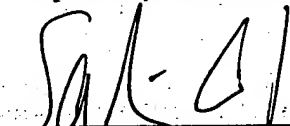
Since the cited references do not disclose nor reasonably suggest the present invention as defined by the pending claims, the present invention is patentable over the cited references. Accordingly, the obviousness rejections should be withdrawn and the application allowed.

In re Appln. of Ghosh et al.
Application No. 09/851,882

Conclusion

The application is considered in good and proper form for allowance, and the Examiner is respectfully requested to pass this application to issue. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,



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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Ghosh et al.

Application No. 09/851,882

Filed: May 9, 2001

Art Unit: 1619

Examiner: G. Yu

For: COSMETIC COMPOSITION WITH
IMPROVED SKIN
MOISTURIZING PROPERTIES

**AMENDMENTS TO CLAIMS MADE IN
RESPONSE TO OFFICE ACTION DATED NOVEMBER 8, 2001**

Amendments to existing claims:

44. A method of reducing the rate of escape of water from the epidermis, the method comprising topically applying a moisture-loss inhibiting effective amount of the composition of claim 40 to the skin.